Attorney's Docket No. 033851-007

Application No. <u>10/790,235</u>

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AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the

application:

LISTING OF CLAIMS:

Claims 1-8 cancelled.

9. (Currently Amended) The cutter insert as defined in claim [1] 21,

characterized in that each side surface is bordered by a pair of cutting edges, one of

which adjoins the top surface and the other of which adjoins the base surface, each

pair of cutting edges being interconnected by an imaginary reference line which

perpendicularly intersects a central plane of the base body situated midway between

the top surface and the base surface.

10. (Currently Amended) The cutter insert as defined in claim [1] 21,

characterized in that the side surfaces are convex.

11. (Currently Amended) The cutter insert according to claim [1] 21

wherein [a] the center axis of the base body extends through the top surface and the

base surface, the base body having a total height H parallel to the center axis, each

side surface including two opposite corner edges, each corner edge extending from

the top surface to the base surface, the two corner edges of each side surface being

offset from one another by a first distance a direction parallel to the center axis,

wherein H-2B=A and A<B.

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12. (Currently Amended) The cutter insert as defined in claim [1] <u>21</u>, characterized in that the side surfaces are oriented perpendicularly to a central plane of the base body disposed midway between the top surface and the base surface.

- 13. (Currently Amended) The cutter insert as defined in claim [1] <u>21</u>, characterized in that the side surfaces are planar.
- 14. (Currently Amended) The cutter insert as defined in claim 2 21, characterized in that the securing bore has respective seating surfaces at the top surface and the base surface for receiving a head of a threaded fastener.
- 15. (Original) The cutter insert as defined in claim 14, characterized in that the seating surfaces are conical.
- 16. (Original) The cutter insert as defined in claim 14, characterized in that the seating surfaces are conical
- 17. (Currently Amended) The cutter insert as defined in claim [1] <u>21</u>, characterized in that at least two of the side surfaces are rhomboid.
 - 18. (Cancelled)

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19. (Currently Amended) The milling tool as defined in claim [18] <u>22</u>, characterized in that each insert seat has seating surfaces at which the respective cutter insert is set negatively in a radial direction with respect to an imaginary line which extends parallel to a central plane of the base body situated midway between the top surface and the base surface, the imaginary line touching a peripheral cutting

edge at its trailing corner.

- 20. (Currently Amended) The milling tool as defined in claim [18] <u>22</u>, characterized in that each insert seat has seating surfaces at which the respective cutter insert is set negatively in an axial direction with respect to an imaginary line which is parallel to a central plane of the base body situated midway between the top surface and the base surface.
 - 21. (New) Cutter insert for milling tools comprising:
 a four-cornered base body having a non-planar base surface, a non-planar
 top surface and four side surfaces, including first and second pairs of opposite
 side surfaces,

the side surfaces, together with the top surface forming two sets of cutting edges which converge at respective diagonally opposite corners,

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the side surfaces, together with the bottom surface, forming two sets of

cutting edges which converge at respective diagonally opposite

corners,

a securing bore extending through the base surface and the top surface,

the base body being configured as twisted around first and second axes of

symmetry lying in a common plane which is intersected by a center axis of the

securing bore at a right angle, the first axis of symmetry passing through the

first pair of opposite sides which are configured as twisted relative to one

another about the first axis of symmetry, the second axis of symmetry passing

through the second pair of opposite sides which are configured as twisted

relative to one another about the second axis, wherein the base surface and

the top surface are of identical shape and are rotationally symmetrical to one

another.

22. (New) A milling tool comprising a tool body and a plurality of cutter

inserts, the tool body defining an axis of rotation and having a plurality of insert seats

spaced around the axis of rotation of receiving respective cutter inserts, each cutter

insert comprising:

a four-cornered base body having a non-planar base surface, a non-planar

top surface and four side surfaces, including first and second pairs of opposite

side surfaces,

the side surfaces, together with the top surface forming two sets of cutting edges which converge at respective diagonally opposite corners,

the side surfaces, together with the bottom surface, forming two sets of cutting edges which converge at respective diagonally opposite corners,

a securing bore extending through the base surface and the top surface,

the base body being configured as twisted around first and second axes of symmetry lying in a common plane which is intersected by a center axis of the securing bore at a right angle, the first axis of symmetry passing through the first pair of opposite sides which are configured as twisted relative to one another about the first axis of symmetry, the second axis of symmetry passing through the second pair of opposite sides which are configured as twisted relative to one another about the second axis, wherein the base surface and the top surface are of identical shape and are rotationally symmetrical to one another.

23. (New) A cutter insert for milling tools, the insert comprising a base body having a base surface, a top surface, and four side surfaces which, together with each of the base surface and the top surface, define respective cutting edges at the top and base surfaces; the body defining a center plane disposed midway between

the top and base surfaces; each of the side surfaces including four corners including

a first pair of diagonally opposed corners and a second pair of diagonally opposed

corners, the first pair of corners spaced by equal first distances from the center

plane, and the second pair of corners spaced by equal second distances from the

center plane, wherein the second distances are longer than the first distances; each

side surface defining a first diagonal extending between the first pair of corners, and

a second diagonal, longer than the first diagonal, extending between the second pair

of corners, wherein the second diagonal of each side surface is non-parallel relative

to the second diagonal of an opposite side surface.

24. (New) The cutter insert as defined in claim 23, characterized in that the

base body has a securing bore formed therethrough from the base surface to the top

surface perpendicular to the center plane.

25. (New) The cutter insert as defined in claim 23, characterized in that the

side surfaces are convex.

26. (New) The cutter insert as defined in claim 24, characterized in that the

side surfaces are oriented perpendicularly to the central plane.

27. (New) The cutter insert as defined in claim 23, characterized in that the

side surfaces are planar.

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28. (New) A milling tool comprising a tool body and a plurality of cutter inserts, the tool body defining an axis of rotation and having a plurality of insert seats spaced around the axis of rotation for receiving respective cutter inserts, each cutter insert comprising a base body having a base surface, a top surface, and four side surfaces which, together with each of the base surface and the top surface, define respective cutting edges at the top and base surfaces; the body defining a center plane disposed midway between the top and base surfaces, each of the side surfaces including four corners including a firsts pair of diagonally opposed corners and a second pair of diagonally opposed corners, the first pair of corners spaced by equal first distances from the center plane, and the second pair of corners spaced by equal second distances from the center plane, wherein the second distances are longer than the first distances; each side surface defining a first diagonal extending between the first pair of corners, and a second diagonal longer than the first diagonal, extending between the second pair of corners, wherein the second diagonal of each side surface is non-parallel relative to the second diagonal of an opposite side surface.

29. (New) The milling tool as defined in claim 28, characterized in that each insert seat has seating surfaces at which the respective cutter insert is set negatively in a radial direction with respect to an imaginary line which extends parallel to a central plane of the base body situated midway between the top surface and the base surface, the imaginary line touching a peripheral cutting edge at its trailing corner.

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- 30. (New) The milling tool as defined in claim 28, characterized in that each insert seat has seating surfaces at which the respective cutter insert is set negatively in an axial direction with respect to an imaginary line which is parallel to the central plane.
- 31. (New) The cutter insert according to claim 28, wherein each side surface intersects the top edges that are parallel as the insert is viewed in a direction perpendicular to the side surface.